

# First earthworm records from the Mouteh Wildlife Refuge, Iran

(Oligochaeta)

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**Abstract.** A earthworms survey was conducted in the Mouteh Wildlife Refuge at six stations in April 2010. The refuge, encompassing about 220,000 ha of the natural reserve, is located in the northwestern part of the Isfahan province and south of the Markazi province that is arid to semi-arid and warm in summer. The surveyed region is located far from human activities, and we expected that its isolation served as a geographic barrier preventing human-based earthworm introductions. Recorded earthworms belong to three genera of the family Lumbricidae, and include the following five species: *Aporrectodea caliginosa* (Savigny, 1826), *A. rosea* (Savigny, 1826), *Dendrobaena hortensis* (Michaelsen, 1890), *D. veneta* (Rosa, 1886), *Eiseniella tetraedra* (Savigny, 1826). In contrast to our expectations, the recorded species, except *D. veneta*, are introduced in Iran.

**Key words.** Earthworms, Lumbricidae, Mouteh Wildlife Refuge, Isfahan and Markazi provinces, Iran.

## Introduction

Early taxonomic studies on Iranian earthworms were carried out by OMRANI (1973), and more recent studies have been done by EZZATPANAH et al. (2010) and LATIF et al. (2009). The aim of this present research was further exploring of the poorly known earthworm fauna of Iran.

Western part of Iran is considered as part of the Iran-Anatolian biodiversity hot spot which contains many centres of local endemism (JALILI & JAMZAD 1999). However, there is no recorded information on the earthworm fauna in this region of Iran. This paper tries to fill this gap by reporting on five species of earthworms belonging to three genera from Mouteh Wildlife Refuge.

## Material & Methods

Study area is located in the Mouteh Wildlife Refuge (50°13' to 51°02'E, 33°23' to 34°01'N; 1500-3000 m asl.), which encompass about 220,000 ha preserved area and is located in the northwest corner of the Isfahan province and in the southern part of the Markazi province. The climate of the area is arid to semi- arid with warm summers. The absolute minimum temperature is -29°C in February and the absolute maximum is +40°C in July and August. The average yearly precipitation of the site is 263 mm, with a maximum of 58.2 mm in May and minimum between 0.1 to 3 mm in summer. The site is located in the Irano-Touranian vegetation region (steppe, semi-steppe and high mountains sites) that includes dry to semi-dry adapted plants (RADARI et al. 2010).